

	9	18	27	36	45	54
5' NCA	ATG GGC CGG CCG TGG TGA ATG TGG GTC CAG ACC CGC CCC TCC TCA					
	63	72	81	90	99	108
GCT TCC TAT AAA AGC TGG GGA CCA GGT ACT GCT GAT ACA CAC ACC ATG AGG CTC						
					M	R L
	117	126	135	144	153	162
TCC AGG AGA CCA GAG ACC TTT CTG CTG GCC TTT GTG TTG CTC TGC ACC CTC CTG						
S R R P E T F L L A A F V L L C T L L						
	171	180	189	198	207	216
GGT CTT GGG TGC CCA CTA CAC TGC GAA ATA TGT ACG GCG GCG AGC AGG TGC						
G L G C P L H C E I C T A A G S R C						
	225	234	243	252	261	270
CAT GGC CAA ATG AAG ACC TGC AGC AGT GAC AAG GAC ACA TGT GTG CTC CTG GTC						
H G Q M K T C C S S D K D T C V L L V						
	279	288	297	306	315	324
GGG AAG GCT ACT TCA AAG GGC AAG GAG TTT GTG CAC ACC TAC AAG GGC TGC ATC						
G K A T S K G K E L V H T Y K G C I						
	333	342	351	360	369	378
AGG TCC CAG GAC TGC TAC TCC GGC GTT ATA TCC ACC ACC ATG GGC CCC AAG GAC						
R S Q D C Y S S G V I S T T M G P K D						

FIGURE 1A

387	CAC	ATG	GTA	ACC	AGC	TCC	TTT	TGC	TGC	AGC	GAC	414	423	432
	H	M	V	T	S	S	F	C	C	Q	S	D	G	AGT GCC TTT
													N	A F
441	TTG	TCT	GTT	CCC	TTG	ACC	AAT	CTT	ACT	GAG	AAT	468	477	486
	L	S	V	P	L	T	N	L	T	E	N	G	CTG	ATG TGC CCC GCC TGC
													M	C P A C
495	ACT	GCG	AGC	TTC	AGG	GAC	AAA	TGC	ATG	GGG	CCC	513	522	531
	T	A	S	F	R	D	K	C	M	G	P	M	T	CAC TGT ACT GGA AAG
														H C T G K
549	GAA	AAC	CAC	TGC	GTC	TCC	TTA	TCT	GGA	CAC	GTG	567	576	585
	E	N	H	C	V	S	L	S	G	H	V	Q	A	GGT ATT TTC AAA CCC
														I F K P
603	AGA	TTT	GCT	ATG	CGG	GGC	TGT	GCT	ACA	GAG	AGT	621	630	639
	R	F	A	M	R	G	C	A	T	E	S	M	C	TGC TTT ACC AAG CCT GGT
														F T K P G
657	GCT	GAA	GTA	CCC	ACA	GGC	ACC	AAT	GTC	CTC	CTC	675	684	693
	A	E	V	P	T	G	T	N	V	L	F	L	H	CAT ATA GAG TGC ACT
														I E C T
711	CAC	TCC	CCC	TGA	AAA	GCT	ATC	TGA	ACA	GAG	GAA	729	738	747
	H	S	P											GTA GTG TGA AGT CCC

FIGURE 1B

T09090"06552860

765	774	783	792	801	810
CAT TTG TCC TCA GCC TGT AAC TTC CCC GTG TGC CTA TAA AGA AGT TAA TAG AGC					
819	828	837			
AAA AAA AAA AAA AAA AAC AAC TCG AG 3'					

FIGURE 1C

1	N	C	A	A	T	G	G	G	C	C	G	T	G	G	G	A	A	G	G	G	T	G	A	A	T	G	consensus	
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8941		
1	G	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10033		
1	G	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10644		
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10774		
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	71854		
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	72861		
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	74452		
1	-	-	-	-	-	-	-	-	-	-	-	C	N	T	G	G	-	-	-	-	-	-	-	-	-	155045		
1	N	C	A	A	T	G	G	G	C	C	G	T	G	G	G	A	A	G	G	G	T	G	A	A	T	G	156817	
1	A	G	A	A	G	A	G	A	C	C	A	T	N	C	C	A	G	G	A	-	-	G	T	-	-	T	G	619856
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	683480		
1	G	-	-	-	-	-	-	-	-	-	-	-	-	-	-	G	G	A	-	-	-	-	-	-	-	1291208		

31	T	G	G	G	T	C	C	A	G	A	C	C	C	G	C	C	C	T	C	C	T	C	A	G	C	T	T	C	C	consensus
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8941	
2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10033	
2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10644	
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10774	
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	71854	
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	72861	
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	74452	
6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	155045	
31	T	G	G	G	T	C	C	A	G	A	C	C	G	C	C	C	C	T	C	C	T	C	A	G	C	T	T	C	C	156817
26	T	G	G	G	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	619856
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	683480	
6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1291208	

Figure 2A

61	T	A	T	A	A	A	G	C	T	G	G	G	A	C	C	A	G	G	T	A	C	T	G	C	T	G	A	T	consensus
1	-	-	-	-	-	-	-	-	-	-	-	-	G	G	A	-	-	G	G	-	-	-	-	-	-	-	-	-	8941
2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10033
2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10644
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10774
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	71854
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	72861
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	74452
15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	155045
61	T	A	T	A	A	A	G	C	T	G	G	G	A	C	C	A	G	G	T	A	C	T	G	C	T	G	A	T	156817
30	-	-	-	-	-	-	G	T	G	G	G	G	A	-	-	-	G	G	-	-	-	-	-	-	-	-	-	-	619856
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	683480
16	T	G	C	A	G	C	C	A	C	T	G	G	G	A	A	T	C	A	A	G	-	-	-	-	-	-	-	-	1291208
91	A	C	A	C	A	C	C	A	T	G	A	G	G	C	T	C	C	A	G	G	A	G	A	C	C	A	-	-	consensus
6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8941
2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10033
2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10644
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10774
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	71854
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	72861
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	74452
15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	155045
91	A	C	A	C	A	C	C	A	T	G	A	G	G	C	T	C	C	A	G	G	A	G	A	C	C	A	-	-	156817
40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	619856
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	683480
36	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1291208

Figure 2B

121	G A G A C C T T T C T G C T G G C C T T T G T G T T G C T C	consensus
19	A A G A C C T T - - - - - - - - - - - - - - - - - - -	8941
2	- -	10033
2	- -	10644
1	- -	10774
1	- -	71854
1	- -	72861
15	- -	74452
121	G A G A C C T T T C T G C T G G C C T T T G T G T T G C T C	155045
53	A A G A C C T T - - - - - - - - - - - - - - - - - - -	156817
1	- -	619856
42	A A -	683480
	- C T C	1291208

151	T G C A C C C T C C T G G G T C T T G G G T G C C C A C T A	consensus
27	- -	8941
8	T N C A C C C T C C T G G G T C T T G G G T G C C C A C T A	10033
2	- -	10644
19	T G C A C C C T C C T G G G T C T T G G G T G C C C A C T A	10774
3	- -	71854
1	- -	72861
1	- -	74452
20	T - C A C C C T C C N G G G T C T N G G G T G C C C A C N A	155045
151	T G C A C C C T C C T G G G T C T T G G G T G C C C A C T A	156817
61	- -	619856
1	- -	683480
47	C G - - - - - - T C T T G - G T C T T N N N N N N N N N N	1291208

Figure 2C

[illegible]

241	A	G	T	G	A	C	A	A	G	G	A	C	A	T	G	T	G	T	G	C	T	C	C	T	G	G	T	C	consensus			
63	A	C	T	G	T	C	-	-	-	-	-	-	-	C	C	T	G	C	C	T	G	T	C	C	C	C	A	-	T	C	8941	
98	A	G	T	G	A	C	A	A	G	G	A	C	A	T	G	T	G	T	G	C	T	C	C	T	G	G	T	C	10033			
2	-	-	-	-	-	-	-	-	-	-	-	-	-	A	C	A	C	A	T	G	T	G	T	C	C	T	G	T	C	10644		
109	A	G	T	G	A	C	A	A	G	G	A	C	A	T	G	T	G	T	G	T	C	C	T	C	C	T	G	T	C	10774		
3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	71854			
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	72861			
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	74452			
109	N	G	T	G	A	C	A	A	G	G	A	C	A	T	G	T	N	T	G	C	T	C	C	T	G	G	T	C	155045			
241	A	G	T	G	A	C	A	A	G	G	A	C	A	T	G	T	G	T	G	C	T	C	C	T	G	G	T	C	156817			
97	A	C	T	G	T	C	-	-	-	-	-	-	-	C	C	T	G	C	C	T	G	T	C	C	C	C	A	-	T	C	619856	
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	683480			
116	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	C	C	G	C	C	C	C	T	C	C	T	C	1291208				
271	G	G	G	A	A	G	G	C	T	A	C	T	T	C	A	A	A	G	G	G	C	A	A	G	G	A	G	T	G	consensus		
85	-	-	-	-	-	-	-	-	-	C	C	A	-	-	-	C	A	G	A	G	G	G	C	A	A	G	G	A	G	T	G	8941
128	G	G	G	A	A	G	G	C	T	A	C	T	T	C	A	A	A	G	G	G	C	A	A	G	G	A	G	T	G	10033		
22	G	G	G	A	A	G	G	C	T	A	C	T	T	C	A	A	A	G	G	G	C	A	A	G	G	A	G	T	G	10644		
139	G	G	G	A	A	G	G	C	T	A	C	T	T	C	A	A	A	G	G	G	C	A	A	G	G	A	G	T	G	10774		
3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	71854			
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	72861			
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	74452			
139	G	G	N	A	A	G	N	C	T	A	C	T	T	C	A	A	A	G	G	G	C	A	A	G	G	A	G	T	G	155045		
271	G	G	G	A	A	G	G	C	T	A	C	T	T	C	A	A	A	G	G	G	C	A	A	G	G	A	G	T	G	156817		
119	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	619856			
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	683480			
130	A	G	-	-	-	-	-	-	-	-	-	-	-	-	C	T	T	C	-	-	-	-	-	-	-	-	-	-	1291208			

Figure 2E

301	G	T	G	C	A	C	A	C	C	T	A	C	A	A	G	G	G	C	T	G	C	A	T	C	A	G	G	T	C	C	consensus	8941
105	G	T	G	C	A	C	A	C	C	T	A	C	A	A	G	G	G	C	T	G	C	A	T	C	A	G	G	T	C	C		10033
158	G	T	G	C	A	C	A	C	C	T	A	C	A	A	G	G	G	C	T	G	C	A	T	C	A	G	G	T	C	C		10644
52	G	T	G	C	A	C	A	C	C	T	A	C	A	A	G	G	G	C	T	G	C	A	T	C	A	G	G	T	N	C		10774
169	G	T	G	C	A	C	A	C	C	T	A	C	A	A	G	G	G	C	T	G	C	A	T	C	A	G	G	T	C	C		71854
3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		72861	
5	G	T	G	C	A	C	A	C	C	T	A	C	A	A	G	G	G	C	T	G	C	A	T	C	A	G	G	T	C	C		74452
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		155045	
169	G	T	G	C	A	C																									156817	
301	G	T	G	C	A	C	A	C	C	T	A	C	A	A	G	G	G	C	T	G	C	A	T	C	A	G	G	T	C	C		619856
139	G	T	G	C	A	C	A	C	T	A	C	A	A	G	G	G	C	T	G	C	A	T	C	A	G	G	T	C	C		683480	
5	G	T	G	C	A	C	A	C	C	T	A	C	A	A	G	G	G	C	T	G	C	A	T	C	A	G	G	T	C	C		1291208
136	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
331	C	A	G	G	A	C	T	G	C	T	A	C	T	C	C	G	G	C	G	T	T	A	T	A	T	C	C	A	C	C	consensus	8941
135	C	A	G	G	A	C	T	G	C	T	A	C	T	C	C	G	G	C	G	T	T	A	T	A	T	C	N	A	C	C		10033
188	C	A	G	G	A	C	T	G	C	T	A	C	T	C	C	G	G	C	G	T	T	A	T	A	T	C	C	A	C	C		10644
82	C	A	G	G	A	C	T	G	C	T	A	C	T	C	C	G	G	N	G	T	T	A	T	A	T	C	C	A	C	C		10774
199	C	A	G	G	A	C	T	G	C	T	A	C	T	C	C	G	G	C	G	T	T	A	T	A	T	C	C	A	C	C		71854
3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		72861	
35	C	A	G	G	A	C	T	C	T	A	C	T	C	C	G	G	N	G	T	T	A	T	A	T	C	C	A	C	C		74452	
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		155045	
174																															156817	
331	C	A	G	G	A	C	T	G	C	T	A	C	T	C	C	G	G	C	G	T	T	A	T	A	T	C	C	A	C	C		619856
169	C	A	G	G	A	C	T	G	C	T	A	C	T	N	C	G	G	N	G	T	T	A	T	A	T	C	C	A	C	C		683480
35	C	A	G	G	A	C	T	G	C	T	A	C	T	C	C	G	G	C	G	T	T	A	T	A	T	N	C	A	C	C		1291208
148	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			

Figure 2F

361	A C C A T G G G C C C A A G G A C C A C A T G G T A A C C	consensus
165	A C C A T G G G C C C A A G G A C C A C A T G G T A A C C	8941
218	A C C A T G G G C C C A A G G A C C A C A T G G T A A C C	10033
112	A C C A T G G G C C C A A G G A C C A C A T G G T A A C C	10644
229	A C C A T G G G C C C A A G G A C C A C A T G G T A A C C	10774
20	A C C A T G G G C C C A A G G A C C A C A T G G T A A C C	71854
65	A C C A T G G G C C C A A G G A C C A C A T G G T A A C C	72861
20	A C C A T G G G C C C A A G G A C C A C A T G G T A A C C	74452
174		
361	A C C A T G G G C C C A A G G A C C A C A T G G T A A C C	155045
199	A C C A T G G G C C C A A G G A C C A C A T G G T A A C C	156817
65	A C C A T G G G C C C A A G G A C C A C A T G G T	619856
148	- - - - - G G G A C C A - - - G G T A - - -	683480
		1291208
391	A G C T C C C T T C T G C T G C C A G A G C G A C G G C T G C	consensus
195	A G C T C C C T T C T G N T G C C A G A G C G A C G G C T G C	8941
248	A G C T C C C T T C T G C T G C - A G A G C G A C G G C T G C	10033
142	A G C T C C C T T C T G C T G C C A G A G C G A C G G C T G C	10644
259	A G C T C C C T T C T G C T G C C A G A G C G A C G G C T G C	10774
50	A G C T C C C T T C T G C T G C C A G A G C G A C G G C T G C	71854
95	A G C T C C C T T N T G C T G C C A G A G C G A C G G C T G C	72861
50	A G C T C C C T T C T G C T G C C A G A G C G A C G G C T G C	74452
174		
391	A G C T C C C T T C T G C T G C C A G A G C G A C G G C T G C	155045
224		156817
95	A G C T C C C T T N T G C T G C C A G A G C G A C G N C T G C	619856
159	- - - - - C T G C	683480
		1291208

Figure 2G

421	A	A	C	A	G	T	G	C	C	T	T	T	T	T	T	T	G	T	C	T	G	T	T	C	C	T	T	G	A	C	C	consensus	
225	A	A	C	A	G	T	G	C	C	T	T	T	T	T	T	T	T	G	T	C	T	G	T	T	C	C	T	T	G	A	C	C	8941
277	A	A	C	A	G	T	G	C	C	T	T	T	T	T	T	T	T	G	T	C	T	G	T	T	C	C	T	T	G	A	C	C	10033
172	A	A	C	A	G	T	G	C	C	T	T	T	T	T	T	T	T	G	T	C	T	G	T	T	C	C	T	T	G	A	C	C	10644
289	A	A	C	A	G	T	G	C	C	T	T	T	T	T	T	T	T	G	T	C	T	G	T	T	C	C	T	T	G	A	C	C	10774
80	A	A	C	A	N	T	G	C	C	T	T	T	T	T	T	T	T	N	T	N	T	G	T	T	C	C	T	T	G	A	C	C	71854
125	A	A	C	A	T	G	C	C	C	T	T	T	T	T	T	T	T	N	T	N	T	G	T	T	C	C	T	T	G			72861	
80	A	A	C	A	N	T	G	C	C	T	T	T	T	T	T	T	T	N	T	N	T	G	T	T	C	C	T	T	G	A	C	C	74452
174																															155045		
421	A	A	C	A	G	T	G	C	C	T	T	T	T	T	T	T	T	G	T	C	T	G	T	T	C	C	T	T	G	A	C	C	156817
224																															619856		
125	A	A	C	A	G	T	G	C	C	T	T	T	T	T	T	T	T	G	T	C	T	G	T	T	C	C	T	T	G	A	C	C	683480
163	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1291208	
451	A	A	T	C	T	T	A	C	T	G	A	G	A	A	T	G	G	C	C	T	G	A	T	G	T	G	C	C	C	C	C	C	consensus
255	A	A	T	C	T	T	A	C	T	G	A	G	A	A	T	G	G	C	C	T	G	A	T	G	T	G	C	C	C	N		8941	
307	A	A	T	C	T	T	A	C	T	G	A	G	A	A	T	G	G	T													10033		
202	A	A	T	N	T	T	A	C	T	G	A	G	A	A	T	N	G	N	C	T	G	A	T	G	T	G	C	C	C	C	C	10644	
319	A	A	T	C	T	T	A	C	T	G	A	G	A	A	T	G	G	C	C	T	G	A	T	G	T	G	C	C	C	C	C	10774	
110	A	A	T	C	T	T	A	C	T	G	A	G	A	A	T	G	G	C	C	T	G	A	T	G	T	G	C	C	C	C	C	71854	
151																														72861			
110	A	A	T	C	T	T	A	C	T	G	A	G	A	A	T	G	G	C	C	T	G	A	T	G	T	G	C	C	C	C	C	74452	
174																														155045			
451	A	A	T	C	T	T	A	C	T	G	A	G	A	A	T	G	G	C	C	T	G	A	T	G	T	G	C	C	C	C	C	156817	
224																														619856			
155	A	A	T	C	T	T	A	C	T	G	A	G	A	A	T	G	G	C	C	T	G	A	T	G	T	G	C	C	C	C	C	683480	
163	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	T	G	A	T	A	C	A	C	-	-	1291208		

Figure 2H

481	G C C T G C A C T G C G A G C T T C A G G G A C A A T G C	consensus
285	G C - T G C A C T G C G A G T T N A G G N C A A - -	8941
324		10033
232	G N C T G C A C T G N G A G C T T C A G G G A C A A T G C	10644
349	G C C T G C A C T G C G A G C T T C A G G G A C A A T G C	10774
140	G C C T G C A C T G C G A G C T T C A G G G A C A A T G C	71854
151		72861
140	G C C T G C A C T G C G A G C T T C A G G G A C A A T G C	74452
174		155045
481	G C C T G C A C T G C G A G C T T C A G G G A C A A T G C	156817
224		619856
185	G N C T G C A C T G C G A G C T T N A G G G A C A A T G C	683480
171	- - - A C A C - - - - - - - - - - - - - - - C	1291208
511	A T G G G C C C A T G A C C C A C T G T A C T G G A A A G	consensus
311	- - - - A T N C A T G - - - - - - - - - - - - - -	8941
324		10033
262	- -	10644
379	A T G G G C C C A T G A C C C A C T G T A C T G G A A A G	10774
170	A T G G G C C C A T G A C C C	71854
151		72861
170	A T G G G C C C A T G A C C C - - - - - C A G G A - -	74452
174		155045
511	A T G G G C C C A T G A C C C A C T G T A C T G G A A A G	156817
224		619856
215	A T G G G C C C A T G A C C C A C T G T A C T G G A A A G	683480
176	A T G A G G C T C - - - - T C C A - - - - - - - - -	1291208

Figure 2I

541	G A A A C C A C T G C G T C T C C T T A T C T G G A C A C	consensus
318	- -	8941
324	- -	10033
262	- -	10644
409	G A A A C C A C T G C G T C T C C T T A T G T G G A C A C	10774
185	- -	71854
151	- -	72861
191	- - - - - - - - C T G C - - - - - - - - - - - - - - - - - -	74452
174	- -	155045
541	G A A A C C A C T G C G T C T C C T T A T C T G G A C A C	156817
224	- -	619856
245	G A A A C C A	683480
189	G G A G A C C A - - - - - - - - - - - - - - - - - - G A G A C	1291208
571	G T G C A G G C T G G T A T T T C A A A C C C A G A T T T	consensus
318	- -	8941
324	- -	10033
262	- -	10644
439	G T G C A T G C T G G T A T T T C A A A C C C A G A T T T	10774
185	- -	71854
151	- -	72861
195	- - - - - - - - - - T A C T C - - - - - - - - - - - - - - - -	74452
174	- -	155045
571	G T G C A G G C T G G T A T T T C A A A C C C A G A T T T	156817
224	- -	619856
252	- -	683480
202	- - - - - - - - - - - - - - - - C T T T C - - - - - - - - - - T	1291208

Figure 2J

601	G	C	T	A	T	G	C	G	G	G	C	T	G	T	G	C	T	A	C	A	G	A	G	A	G	T	A	T	G	consensus
318	-	-	-	-	-	-	-	G	G	G	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8941	
324																													10033	
262	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	T	10644	
469	G	C	T	A	T	G	C	G	G	G	C	T	G	T	G	C	T	A	C	A	G	A	G	A	G	T	A	T	G	10774
185																													71854	
151																													72861	
200	-	-	-	-	-	-	C	G	G	N	G	T	T	A	T	A	-	-	-	-	-	-	-	-	-	-	-	-	74452	
174																													155045	
601	G	C	T	A	T	G	C	G	G	G	C	T	G	T	G	C	T	A	C	A	G	A	G	A	G	T	A	T	G	156817
224																													619856	
252																													683480	
208	G	C	T	-	-	-	-	-	-	-	G	G	C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1291208	
631	T	G	C	T	T	T	A	C	C	A	A	G	C	C	T	G	G	T	G	C	T	G	A	A	G	T	A	C	C	consensus
322	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8941	
324																													10033	
262																													10644	
499	T	G	C	T	T	T	A	C	C	A	A	G	C	C	T	G	G	T	G	C	T	G	A	A	G	T	A	C	C	10774
185																													71854	
151																													72861	
210	-	-	-	T	C	C	A	C	C	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	C	74452	
174																													155045	
631	T	G	C	T	T	T	A	C	C	A	A	G	C	C	T	G	G	T	G	C	T	G	A	A	G	T	A	C	C	156817
224																													619856	
252																													683480	
214	-	-	C	T	T	T	-	-	-	-	-	-	-	-	-	-	G	T	G	T	T	G	-	-	-	-	-	-	1291208	

Figure 2K

661	A C A G G C A C C A A T G T C C T C T T C C T C C A T C A T	consensus
322	- - - - -	8941
324		10033
262		10644
529	A C A G G C A C C A A T G T C C T C T T C C T C C A T C A T	10774
185		71854
151		72861
219	A T G G G C C C A A G G - - - - - A C C A C	74452
174		155045
661	A C A G G C A C C A A T G T C C T C T T C C T C C A T C A T	156817
224		619856
252		683480
224	- - - - - C T C - - - - -	1291208
691	A T A G A G T G C A C T C A C T C C C C C T G A A A G C T	consensus
322	- - - - -	8941
324		10033
262		10644
559	A T A G A G T G C A C T C A C T C C C C C T G A A A G C T	10774
185		71854
151		72861
237	A T G - - G T A - A C C A G C T C C T T C T G - - - - C T	74452
174		155045
691	A T A G A G T G C A C T C A C T C C C C C T G A A A G C T	156817
224		619856
252		683480
227	- - - - - T G C A C - - - - C C T C C T G G G - - - -	1291208

Figure 2L

721	A	T	C	T	G	A	A	C	A	G	A	G	A	T	A	A	T	G	T	A	G	T	G	T	G	A	consensus			
322	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8941				
324																										10033				
262																										10644				
589	A	T	C	T	G	A	A	C	A	G	A	G	A	T	A	A	T	G	T	A	G	T	G	T	G	A	10774			
185																										71854				
151																										72861				
259	G	C	C	A	G	A	G	C	N	A	C	G	G	C	-	-	-	-	T	G	C	A	A	C	-	-	74452			
174																										155045				
721	A	T	C	T	G	A	A	C	A	G	A	G	A	T	A	A	T	G	T	A	G	T	G	T	G	A	156817			
224																										619856				
252																										683480				
241	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1291208				
751	A	G	T	C	C	C	C	A	T	T	G	T	C	C	T	C	A	G	C	C	T	G	T	A	A	C	T	T	C	consensus
322	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8941			
324																											10033			
262																											10644			
619	A	G	T	C	C	C	C	A	T	T	G	T	T	C	C	T	A	G	N	C	T	G	T	A	A	C	T	T	C	10774
185																											71854			
151																											72861			
279	A	N	T	G	C	C	-	-	T	T	T	N	T	-	-	-	-	G	T	C	T	G	T	N	-	-	-	C	74452	
174																											155045			
751	A	G	T	C	C	C	C	A	T	T	G	T	C	C	T	C	A	G	C	C	T	G	T	A	A	C	T	T	C	156817
224																											619856			
252																											683480			
241	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	T	C	T	T	G	G	-	-	-	-	-	1291208	

Figure 2M

781	C C C G T G T G - C C T A T A A G A G T T A A T A G A G	consensus
327		8941
324		10033
262		10644
649	C C - G T G T G G C C T A T A A N G A A G T T A A T N G N G	10774
185		71854
151		72861
298	C C T - - - T G A C C - - - - A A T C T N A C T G A G	74452
174		155045
781	C C C G T G T G - C C T A T A A G A A G T T A A T A G A G	156817
224		619856
252		683480
247	- - - G T G C	1291208
810	C A A A A A A A A A A A A A A A A A A A C T C G A G	consensus
327		8941
324		10033
262		10644
678	C A A N N A N A A G A A A A A A	10774
185		71854
151		72861
318	- - - - - - - - - - - - A A T N G C C T G A T T	74452
174		155045
810	C A A A A A A A A A A A A A A A A A A C T C G A G	156817
224		619856
252		683480
250		1291208

Figure 2N

1 MRLSRRPETFLLAFLVLLCTLLGLGCP LHCE GIPL aa
1 MK-----YLHTICLLFI FVARGN SRS CD CNF aa

31 ICTAAGSRCHGQMKTCS SSKDTCVLLVGKA GIPL aa
24 FCHNI GKDCDGYEEECSSPE DVC GKVLLEI CNF aa

61 TSKGKELVHTYKGCIRSQDCYSGVISTTMG GIPL aa
54 S S A S L S V R T V H K N C F S S S I C K L G Q F D V N I G CNF aa

91 PKDHMVTS SFC C Q S D G C N S - A F L S V P L T N L GIPL aa
84 H H S Y I R G R I N C C E K E L C E D Q P F P G L P L S K - CNF aa

120 TENG L M C P A C T A S F R D K C M G P M T H C T G K E N GIPL aa
113 - P N G Y Y C P G A I G L F T K D S T E Y E A I C K G T E T CNF aa

150 H C V S L S G H V Q A G I F K P - - R F A M R G C A T E S M GIPL aa
142 K C I N I V G H - R Y E Q F P G D I S Y N L K G C V S S - - CNF aa

178 C F T K P G A E V P T G T N V L F L H H I E C T H S P GIPL aa
169 C P L L S L S N A T F E Q N R N Y L E K V E C K D A I R L A CNF aa

204
199 S L
GIPL aa
CNF aa

Figure 3

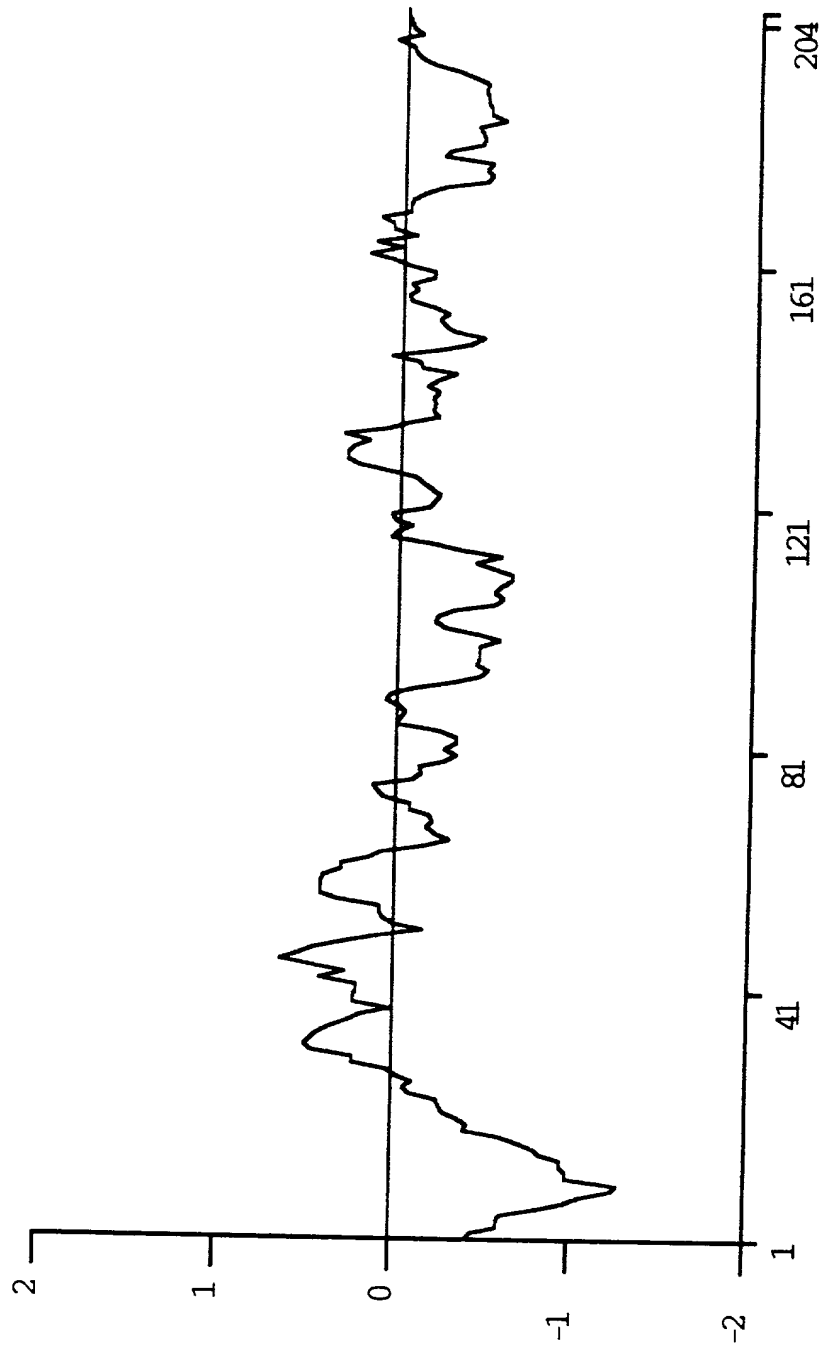


FIGURE 4

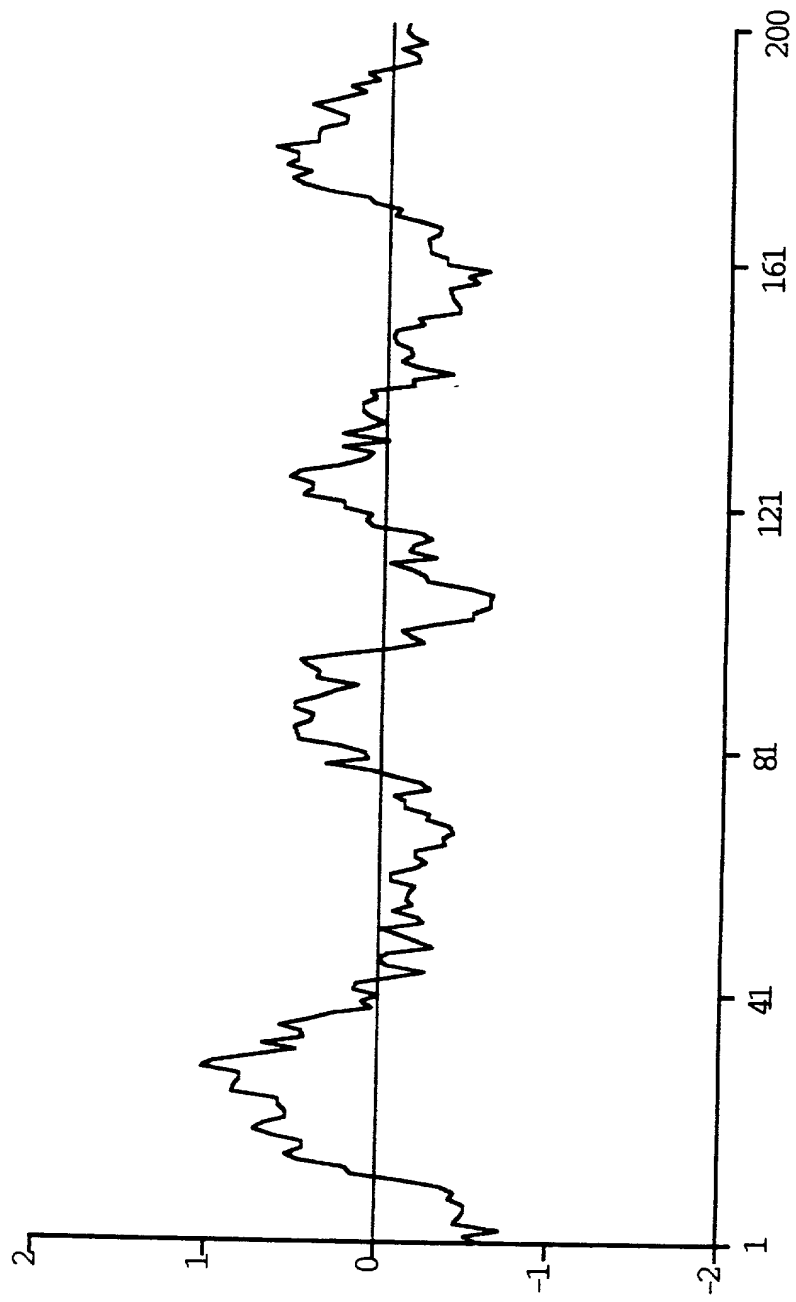


FIGURE 5

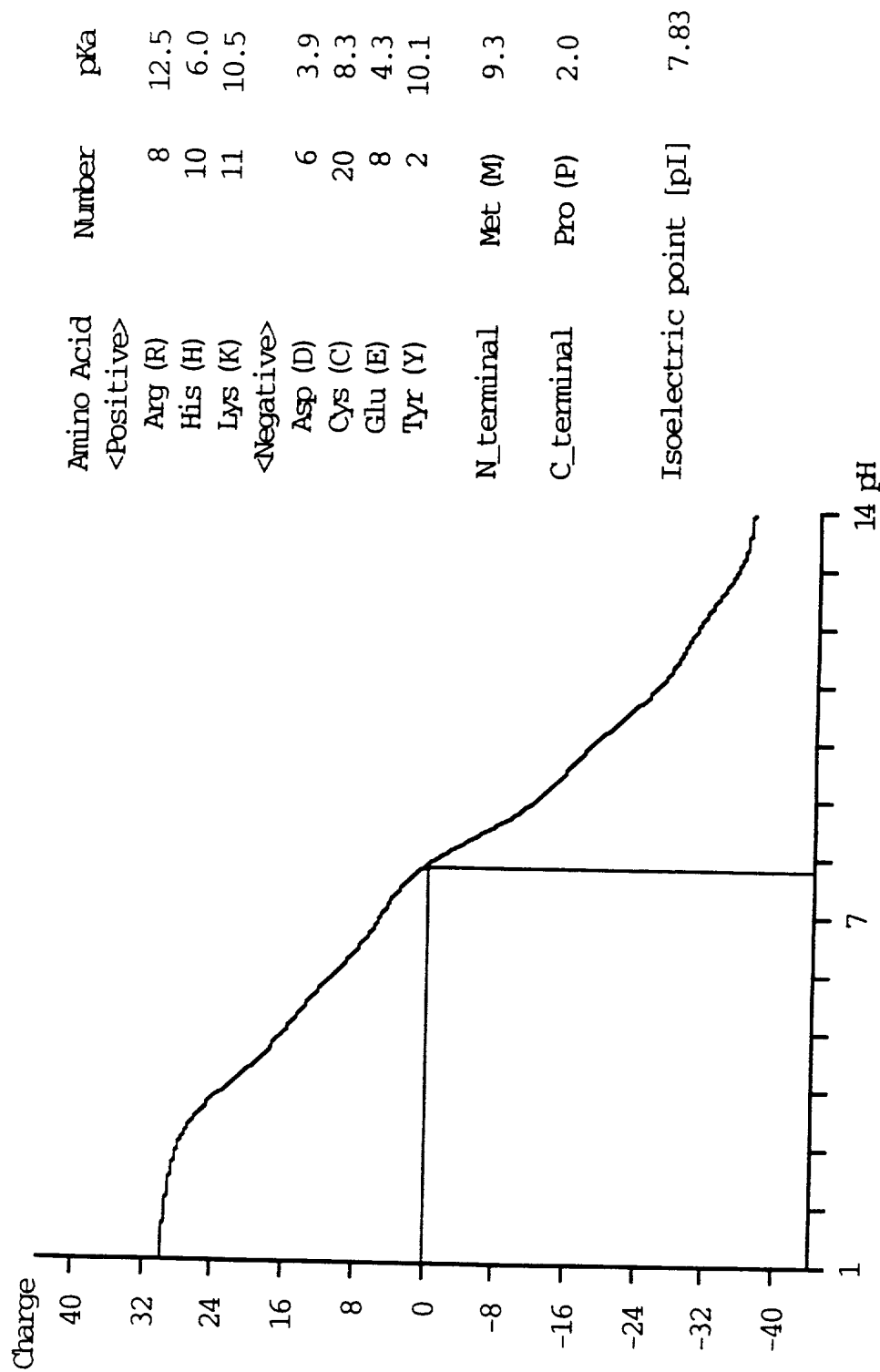


FIGURE 6

TP09090" 025512860

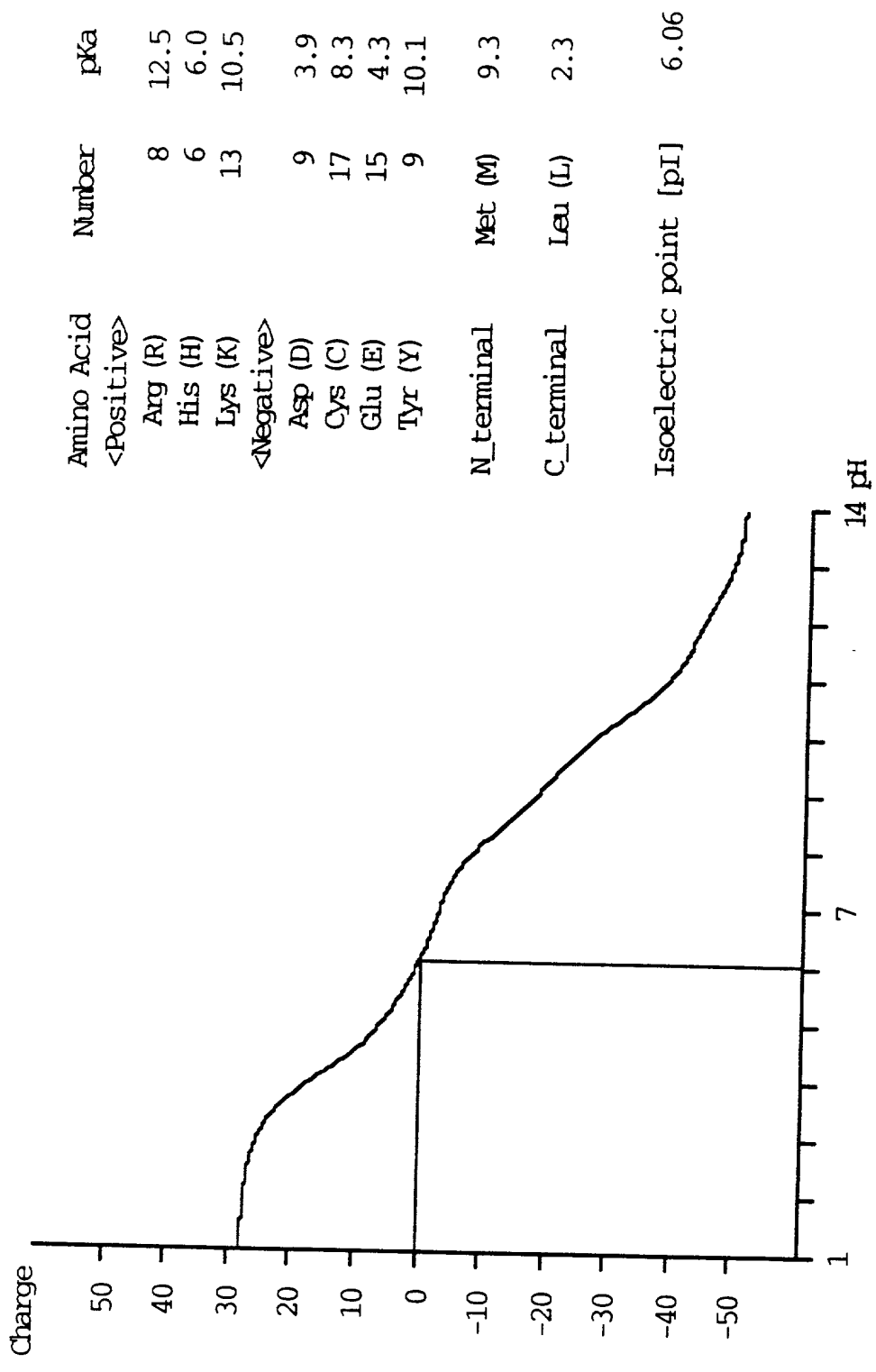


FIGURE 7

5' NCA ATG GGC CGG CCG TGG GAA GGG TGA ATG TGG GTC CAG ACC CGC CCC TCC TCA

9 18 27 36 45 54

GCT TCC TAT AAA AGC TGG GGA CCA GGT ACT GCT GAT ACA CAC ACC ATG AGG CTC

63 72 81 90 99 108

M R L

TCC AGG AGA CCA GAG ACC TTT CTG CTG GCC TTT GTG TTG CTC TGC ACC CTC CTG

117 126 135 144 153 162

S R R P E T F L L A F V L L C T L L

GGT CTT GGG TGC CCA CTA CAC TGC GAA ATA TGT ACG GCG GCG GGG AGC AGG TGC

171 180 189 198 207 216

G L G C P L H C E I C T A A G S R C

CAT GGC CAA ATG AAG ACC TGC AGC AGT GAC AAG GAC ACA TGT GTG CTC CTG GTC

225 234 243 252 261 270

H G Q M K T C S S D K D T C V L L V

GGG AAG GCT ACT TCA AAG GGC AAG GAG TTG GTG CAC ACC TAC AAG GGC TGC ATC

279 288 297 306 315 324

G K A T S K G K E L V H T Y K G C I

AGG TCC CAG GAC TGC TAC TCC GGC GTT ATA TCC ACC ACC ATG GGC CCC AAG GAC

333 342 351 360 369 378

R S Q D C Y S G V I S T T M G P K D

CAC ATG GTA ACC AGC TCC TTC TGC TGC CAG AGC GAC GGC TGC AAC AGT GCC TTT

387 396 405 414 423 432

H M V T S S F C C Q S D G C N S A F

TTG TCT GTT CCC TTG ACC AAT CTT ACT GAG AAT GGC CTG ATG TGC CCC GCC TGC

441 450 459 468 477 486

L S V P L T N L T E N G L M C P A C

ACT GCG AGC TTC AGG GAC AAA TGC ATG GGG CCC ATG ACC CAC TGT ACT GGA AAG

495 504 513 522 531 540

T A S F R D K C M G P M T H C T G K

FIGURE 1A

GAA	AAC	CAC	TGC	GTC	549	TTC	TCT	GGA	CAC	GTG	576	GCT	GGT	ATT	TTC	AAA	594
E	N	H	C	V	S	L	S	G	H	V	Q	A	G	I	F	K	P
AGA	TTT	603	GCT	ATG	CGG	612	GCT	ACA	GAG	AGT	621	ATG	TGC	TTT	630	ACC	648
R	F	A	M	R	G	C	A	T	E	S	M	C	F	T	K	P	G
GCT	GAA	657	GTA	CCC	ACA	666	ACC	AAT	GTC	CTC	675	CTC	CAT	CAT	684	ATA	702
A	E	V	P	T	G	T	N	V	L	F	L	H	H	I	E	C	T
CAC	TCC	711	CCC	TGA	AAA	720	GCT	ATC	TGA	ACA	729	GAG	GAA	GAT	738	AAT	756
H	S	P															CCC
CAT	TTG	765	TCC	TCA	GCC	774	TGT	AAC	TTC	783	CCC	GTG	TGC	CTA	792	TAA	810
																	AGC
AAA	AAA	819	AAA	AAA	AAA	828	AAA	AAC	TCG	837	AG	3'					

FIGURE 1B

1	N	C	A	A	T	G	G	G	C	C	G	G	C	C	G	T	G	G	G	A	A	G	G	G	T	G	A	A	T	G	consensus
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8941
1	G	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10033
1	G	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10644
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10774
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	71854
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	72861
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	74452
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	C	N	T	G	G	-	-	-	-	-	-	-	-	-	-	155045
1	N	C	A	A	T	G	G	G	C	C	G	G	C	C	G	T	G	G	G	A	A	G	G	G	T	G	A	A	T	G	156817
1	A	G	A	A	A	G	A	G	A	C	C	A	T	N	C	C	A	G	G	A	A	-	-	G	T	-	-	-	T	G	619856
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	683480
1	G	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	G	G	A	A	-	-	-	-	-	-	-	-	-	1291208
31	T	G	G	G	T	C	C	A	G	A	C	C	C	G	C	C	C	T	C	C	T	C	A	G	C	T	T	C	C	consensus	
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8941
2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10033
2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10644
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10774
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	71854
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	72861
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	74452
6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	155045
31	T	G	G	G	T	C	C	A	G	A	C	C	C	G	C	C	C	T	C	C	T	C	A	G	C	T	T	C	C	156817	
25	T	G	G	G	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	619856
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	683480
5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1291208
51	T	A	T	A	A	A	G	C	T	G	G	G	G	A	C	C	A	G	G	T	A	C	T	G	C	T	G	A	T	consensus	
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	G	G	A	-	-	-	-	-	-	-	-	-	-	-	8941
2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10033
2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10644
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10774
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	71854
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	72861
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	74452
15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	155045
51	T	A	T	A	A	A	G	C	T	G	G	G	G	A	C	C	A	G	G	T	A	C	T	G	C	T	G	A	T	156817	
30	-	-	-	-	-	-	-	G	T	T	G	G	G	G	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	619856
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	683480
15	T	G	C	A	G	C	C	A	C	T	G	G	G	A	A	T	C	A	A	G	-	-	-	-	-	-	-	-	-	-	1291208

FIGURE 2A

121	G A G A C C T T T C T G C T G G C C T T T G T G T T G C T C	consensus
19	A A G A C C T T - - - - - - - - - - - - - - - - - -	8941
2	- - - - - - - - - - - - - - - - - - T T G C T C	10033
2	- -	10644
1	- - - - - - - - - - - - C T G G C C T T T G T G T T G C T C	10774
1	- - - - - - - - - - - - C T - - - - - - - - - - - - - -	71854
1	- -	72861
1	- -	74452
15	- -	155045
121	G A G A C C T T T C T G C T G G C C T T T G T G T T G C T C	156817
53	A A G A C C T T - - - - - - - - - - - - - - - - - -	619856
1	- -	683480
42	A A - C T C	1291208
151	T G C A C C C T C C T G G G T C T T G G G T G C C C A C T A	consensus
27	- - - - - - - - - - - - G A G G C A G G G G T - - - - - - - -	8941
8	T N C A C C C T C C T G G G T C T T G G G T G C C C A C T A	10033
2	- -	10644
19	T G C A C C C T C C T G G G T C T T G G G T G C C C A C T A	10774
3	- -	71854
1	- -	72861
1	- -	74452
20	T - C A C C C T C C N G G G T C T N G G G T G C C C A C N A	155045
151	T G C A C C C T C C T G G G T C T T G G G T G C C C A C T A	156817
61	- - - - - - - - - - - - G A G G C A G G G G T - - - - - - - -	619856
1	- -	683480
47	C G - - - - - T C T T G - G T C T T N N N N N N N N N N N	1291208
181	C A C T G C G A A A T A T G T A C G G C G G C G G G G A G C	consensus
38	- - - - - T G A A G C - - - - - - - - - - C A G G G A G -	8941
38	C A C T G C G A A A T A T G T A C G G C G G C G G G G A G C	10033
2	- -	10644
49	C A C T G C G A A A T A T G T A C G G C G G C G G G G A G C	10774
3	- -	71854
1	- -	72861
1	- -	74452
49	C A C T G C G A A N T A T G T A C G G C G G C G G G T A G C	155045
181	C A C T G C G A A A T A T G T A C G G C G G C G G G G A G C	156817
72	- - - - - T G A A G C - - - - - - - - - - C A G G G A G -	619856
1	- -	683480
71	N N N N N N N C A A T G G G C - C G G C C G T G G G A A G -	1291208

FIGURE 2C

211	A G G T G C C A T G G C C A A A T G A A G A C C T G C A G C	consensus
51	- - - - - T G G T C A G C - - - - - C A G C	8941
68	A G G T G C C A T G G C C A A A T G A A G A C C T G C A G C	10033
2	- -	10644
79	A G G T G C C A T G G C C A A A T G A A G A C C T G C A G C	10774
3	- -	71854
1	- -	72861
1	- -	74452
79	A G G T T C C A T G N C C A A A T N A A G A N C T T C A N C	155045
211	A G G T G C C A T G G C C A A A T G A A G A C C T G C A G C	156817
85	- - - - - T G G T C A G C - - - - - C A G C	619856
1	- -	683480
99	- G G T G - - - - - A A T G T G G G T C - - C A G -	1291208

FIGURE 2D

241	A G T G A C A A G G A C A C A T G T G T G C T C C T G G T C	consensus
53	A C T G T C - - - - - C C T G C C T G T C C C C A - T C	8941
98	A G T G A C A A G G A C A C A T G T G T G C T C C T G G T C	10033
2	- - - - - A C A C A T G T G T N C T C C T G G T C	10644
109	A G T G A C A A G G A C A C A T G T G T G C T C C T G G T C	10774
3	- -	71854
1	- -	72861
1	- -	74452
109	N G T G A C A A G G A C A C A T G T N T G C T C C T G G T C	155045
241	A G T G A C A A G G A C A C A T G T G T G C T C C T G G T C	156817
97	A C T G T C - - - - - C C T G C C T G T C C C C A - T C	619856
1	- -	683480
116	- - - - - - - - - - - A C C C G C C C C T C C T C	1291208
271	G G G A A G G C T A C T T C A A A G G G C A A G G A G T T G	consensus
85	- - - - - C C A - - - C A G A G G G C A A G G A G T T G	8941
128	G G G A A G G C T A C T T C A A A G G G C A A G G A G T T G	10033
22	G G G A A G G C T A C T T C A A A G G G C A A G G A G T T G	10644
139	G G G A A G G C T A C T T C A A A G G G C A A G G A G T T G	10774
3	- -	71854
1	- - - - - - - - - - - T - - - - - - - - - - - - - -	72861
1	- -	74452
139	G G N A A G N C T A C T T C A A A G G G C A A G G A G T T G	155045
271	G G G A A G G C T A C T T C A A A G G G C A A G G A G T T G	156817
119	- - - - - C C A - - - C A G A G G G C A A G G A G T T G	619856
1	- -	683480
130	A G - - - - - C T T C - - - - - - - - - - - - - -	1291208
301	G T G C A C A C C T A C A A G G G C T G C A T C A G G T C C	consensus
105	G T G C A C A C C T A C A A G G G C T G C A T C A G G T C C	8941
158	G T G C A C A C C T A C A A G G G C T G C A T C A G G T C C	10033
52	G T G C A C A C C T A C A A G G G C T G C A T C A G G T N C	10644
169	G T G C A C A C C T A C A A G G G C T G C A T C A G G T C C	10774
3	- -	71854
5	G T G C A C A C C T A C A A G G G C T G C A T C A G G T C C	72861
1	- -	74452
169	G T G C A C	155045
301	G T G C A C A C C T A C A A G G G C T G C A T C A G G T C C	156817
139	G T G C A C A A C T A C A A G G G C T G C A T C A G G T C C	619856
5	G T G C A C A C C T A C A A G G G C T G C A T C A G G T C C	683480
136	- - - - - C T A T A A A A G C T G - - - - - - - - -	1291208

FIGURE 2E

109090" 0255'850

331	C	A	G	G	A	C	T	G	C	T	A	C	T	C	C	G	G	C	G	T	T	A	T	A	T	C	C	A	C	C	consensus		
135	C	A	G	G	A	C	T	G	C	T	A	C	T	C	C	G	G	C	G	T	T	A	T	A	T	C	N	A	C	C	8941		
188	C	A	G	G	A	C	T	G	C	T	A	C	T	C	C	G	G	C	G	T	T	A	T	A	T	C	C	A	C	C	10033		
82	C	A	G	G	A	C	T	G	C	T	A	C	T	C	C	G	G	N	G	T	T	A	T	A	T	C	C	A	C	C	10644		
199	C	A	G	G	A	C	T	G	C	T	A	C	T	C	C	G	G	C	G	T	T	A	T	A	T	C	C	A	C	C	10774		
3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	C	C	G	G	C	G	T	T	A	T	A	T	C	C	A	C	C	71854	
35	C	A	G	G	A	C	T	T	C	T	A	C	T	C	C	G	G	N	G	T	T	A	T	A	T	C	C	A	C	C	72861		
1	-	-	-	-	-	-	-	-	-	-	-	-	-	C	T	C	C	G	G	C	G	T	T	A	T	A	T	C	C	A	C	C	74452
174																															155045		
331	C	A	G	G	A	C	T	G	C	T	A	C	T	C	C	G	G	C	G	T	T	A	T	A	T	C	C	A	C	C	156817		
169	C	A	G	G	A	C	T	G	C	T	A	C	T	N	C	G	G	N	G	T	T	A	T	A	T	C	C	A	C	C	619856		
35	C	A	G	G	A	C	T	G	C	T	A	C	T	C	C	G	G	C	G	T	T	A	T	A	T	N	C	A	C	C	683480		
148	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1291208		

FIGURE 2F

351	A C C A T G G G C C C C A A G G A C C A C A T G G T A A C C	consensus
155	A C C A T G G G C C C C A A G G A C C A C A T G G T A A C C	8941
218	A C C A T G G G C C C C A A G G A C C A C A T G G T A A C C	10033
112	A C C A T G G G C C C C A A G G A C C A C A T G G T A A C C	10644
229	A C C A T G G G C C C C A A G G A C C A C A T G G T A A C C	10774
20	A C C A T G G G C C C C A A G G A C C A C A T G G T A A C C	71854
65	A C C A T G G G C C C C A A G G A C C A C A T G G T A A C C	72861
20	A C C A T G G G C C C C A A G G A C C A C A T G G T A A C C	74452
174		155045
351	A C C A T G G G C C C C A A G G A C C A C A T G G T A A C C	156817
199	A C C A T G G G C C C C A A G G A C C A C A T G G T	619856
65	A C C A T G G G N C C C A A G G A C C A C A T G G T A A C C	683480
148	- - - - - - - - - - - G G G A C C A - - - G G T A - - -	1291208
391	A G C T C C T T C T G C T G C C A G A G C G A C G G C T G C	consensus
195	A G C T C C T T C T G N T G C C A G A G C G A C G G C T G C	8941
248	A G C T C C T T C T G C T G C - A G A G C G A C G G C T G C	10033
142	A G C T C C T T C T G C T G C C A G A G C G A C G G C T G C	10644
259	A G C T C C T T C T G C T G C C A G A G C G A C G G C T G C	10774
50	A G C T C C T T C T G C T G C C A G A G C G A C G G C T G C	71854
95	A G C T C C T T N T G C T G C C A G A G C G A C G G C T G C	72861
50	A G C T C C T T C T G C T G C C A G A G C G A C G G C T G C	74452
174		155045
391	A G C T C C T T C T G C T G C C A G A G C G A C G G C T G C	156817
224		619856
95	A G C T C C T T N T G C T G C C A G A G C G A C G N C T G C	683480
159	- - - - - - - - - - - - - - - - - C T G C	1291208
421	A A C A G T G C C T T T T T G T C T G T T C C C T T G A C C	consensus
225	A A C A G T G C C T T T T T G T C T G T T C C C T T G A C C	8941
277	A A C A G T G C C T T T T T G T C T G T T C C C T T G A C C	10033
172	A A C A G T G C C T T T T T G T C T G T T C C C T T G A C C	10644
289	A A C A G T G C C T T T T T G T C T G T T C C C T T G A C C	10774
80	A A C A N T G C C T T T T T N T N T G T T C C C T T G A C C	71854
125	A A C A T T G C C T T T T T N T N T G T N C C C T T G	72861
80	A A C A N T G C C T T T T T N T N T G T T C C C T T G A C C	74452
174		155045
421	A A C A G T G C C T T T T T G T C T G T T C C C T T G A C C	156817
224		619856
125	A A C A G T G C C T T T T T G T C T G T T C C C T T G A C C	683480
153	- -	1291208

FIGURE 2G

109090" 02452960

451	A A T C T T A C T G A G A A T G G C C T G A T G T G C C C C	consensus
255	A A T C T T A C T G A G A A T G G C C T G A T G T G C C C N	8941
307	A A T C T T A C T G A G A A T G G T	10033
202	A A T N T T A C T G A G A A T N G N C T G A T G T G C C C C	10644
319	A A T C T T A C T G A G A A T G G C C T G A T G T G C C C C	10774
110	A A T C T T A C T G A G A A T G G C C T G A T G T G C C C C	71854
151		72861
110	A A T C T T A C T G A G A A T G G C C T G A T G T G C C C C	74452
174		155045
451	A A T C T T A C T G A G A A T G G C C T G A T G T G C C C C	156817
224		619856
155	A A T C T T A C T G A G A A T G G C C T G A T G T G C C C C	683480
163	- - - - - T G A T A C A C - - -	1291208

FIGURE 2H

481	G C C T G C A C T G C G A G C T T C A G G G A C A A A T G C	consensus
235	G C - T G C A C T G C G A G T T T N A G G G N C A A A - - -	8941
324		10033
232	G N C T G C A C T G N G A G C T T C A G G G A C A A A T G C	10644
349	G C C T G C A C T G C G A G C T T C A G G G A C A A A T G C	10774
140	G C C T G C A C T G C G A G C T T C A G G G A C A A A T G C	71854
151		72861
140	G C C T G C A C T G C G A G C T T C A G G G A C A A A T G C	74452
174		155045
481	G C C T G C A C T G C G A G C T T C A G G G A C A A A T G C	156817
224		619856
185	G N C T G C A C T G C G A G C T T N A G G G A C A A A T G C	683480
171	- - - - A C A C - - - - - - - - - - - - - - - - - - - C	1291208
511	A T G G G G C C C A T G A C C C A C T G T A C T G G A A A G	consensus
311	- - - - - A T N C A T G - - - - - - - - - - - - - - - - -	8941
324		10033
252	- -	10644
379	A T G G G G C C C A T G A C C C A C T G T A C T G G A A A G	10774
170	A T G G G G C C C A T G A C C C	71854
151		72861
170	A T G G G G C C C A T G A C C C - - - - - C A G G A - - -	74452
174		155045
511	A T G G G G C C C A T G A C C C A C T G T A C T G G A A A G	156817
224		619856
215	A T G G G G C C C A T G A C C C A C T G T A C T G G A G A G	683480
176	A T G A G G C T C - - - - T C C A - - - - - - - - - - - -	1291208
541	G A A A A C C A C T G C G T C T C C T T A T C T G G A C A C	consensus
318	- -	8941
324		10033
262	- -	10644
409	G A A A A C C A C T G C G T C T C C T T A T G T G G A C A C	10774
185		71854
151		72861
191	- - - - - - - - C T G C - - - - - - - - - - - - - - - -	74452
174		155045
541	G A A A A C C A C T G C G T C T C C T T A T C T G G A C A C	156817
224		619856
245	G A A A A C C A	683480
189	G G A G A C C A - - - - - - - - - - - - - - - - G A G A C	1291208

FIGURE 2I

691	A T A G A G T G C A C T C A C T C C C C C T G A A A A G C T	consensus
322	- - - - -	8941
324		10033
262		10644
559	A T A G A G T G C A C T C A C T C C C C C T G A A A A G C T	10774
185		71854
151		72861
237	A T G - - G T A - A C C A G C T C C T T C T G - - - - - C T	74452
174		155045
691	A T A G A G T G C A C T C A C T C C C C C T G A A A A G C T	156817
224		619856
252		683480
227	- - - - - T G C A C - - - - - C C T C C T G G G - - - - -	1291208

FIGURE 2L

721	A T C T G A A C A G A G G A A G A T A A T G T A G T G T G A	consensus
322	- - - - -	8941
324		10033
262		10644
589	A T C T G A A C A G A G G A A G A T A A T G T A G T G T G A	10774
185		71854
151		72861
259	G C C A G A G C N A C G G C - - - - - T G C A A C - - - -	74452
174		155045
721	A T C T G A A C A G A G G A A G A T A A T G T A G T G T G A	156817
224		619856
252		683480
241	- - - - -	1291208
751	A G T C C C C A T T T G T C C T C A G C C T G T A A C T T C	consensus
322	- - - - C C C A T T	8941
324		10033
262		10644
619	A G T C C C C A T T T G T T C C T A G N C T G T A A C T T C	10774
185		71854
151		72861
279	A N T G C C - - T T T N T - - - - - G T C T G T N - - - - C	74452
174		155045
751	A G T C C C C A T T T G T C C T C A G C C T G T A A C T T C	156817
224		619856
252		683480
241	- - - - - T C T T G G - - - - -	1291208
781	C C C G T G T G - C C T A T A A A G A A G T T A A T A G A G	consensus
327		8941
324		10033
262		10644
649	C C - G T G T G G C C T A T A A N G A A G T T A A T N G N G	10774
185		71854
151		72861
298	C C T - - - T G A C C - - - - - A A T C T N A C T G A G	74452
174		155045
781	C C C G T G T G - C C T A T A A A G A A G T T A A T A G A G	156817
224		619856
252		683480
247	- - - G T G C	1291208

FIGURE 2M

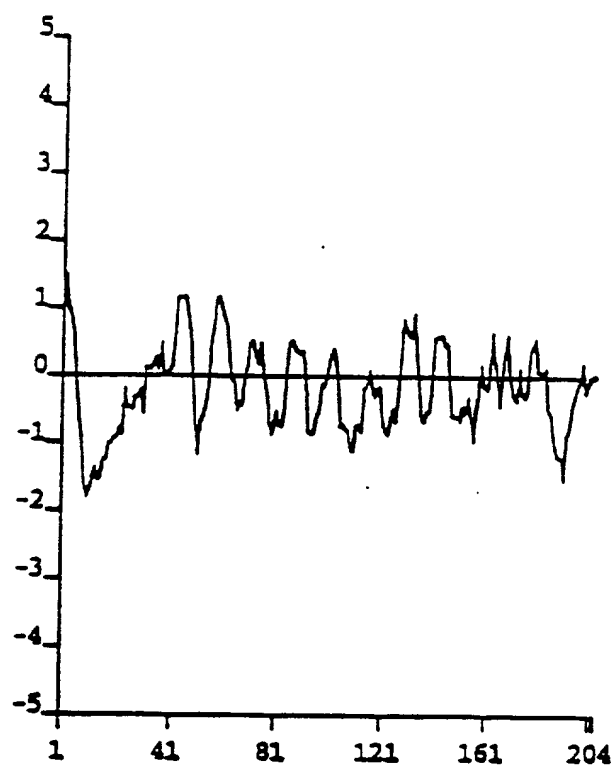


FIGURE 4

The graph displays a time series with high volatility. The y-axis is labeled from -5 to 5 in increments of 1. The x-axis is labeled from 1 to 200 in increments of 40. The series starts near 0, drops to a low of approximately -2.2 around period 10, then rises to a peak of about 1.5 around period 40. It continues to fluctuate, with another significant peak of about 1.2 around period 100 and a low of about -1.5 around period 130. The series ends near 0 at period 200.

FIGURE 5

Isoelectric point (pI) 6.06

FIGURE 7